

REMARKS

This application has been carefully reviewed in light of the final Office Action dated November 14, 2008. Claims 1 to 6, 8, 9 and 13 to 16 are pending in the application, with Claims 7 and 10 to 12 having been cancelled. Claims 1, 8, 9, 13 and 15 are the independent claims. Reconsideration and further examination are respectfully requested.

Applicant wishes to thank the Examiner and her Supervisor for the courtesies and thoughtful treatment accorded Applicant's representative during the March 11, 2009 telephonic interview. This Amendment has been prepared based on the discussions and agreements reached during that interview and it is respectfully submitted that the following summarizes the content of the interview.

In the Office Action, Claims 1 and 3 to 5 were rejected under 35 U.S.C. § 102(b) over U.S. Patent Application Publication No. 2002/0179140 (Toyomura). Claim 10 was rejected under 35 U.S.C. § 102(b) over U.S. Patent Application Publication No. 2002/0050290 (Kobayashi). Claim 2 was rejected under 35 U.S.C. § 103(a) over Toyomura in view of U.S. Patent Application Publication No. 2002/0038667 (Kondo). Claim 6 was rejected under 35 U.S.C. § 103(a) over Toyomura in view of Kondo and further in view of U.S. Patent No. 6,331,670 (Takehara). Claims 7 to 9 and 13 to 16 were rejected under 35 U.S.C. § 103(a) over Toyomura. Claims 11 and 12 were rejected under 35 U.S.C. § 103(a) over Kobayashi in view of Kondo. Inasmuch as Claims 7 and 10 to 12 have been cancelled herein, the rejections with regard to those claims are believed to be obviated. With respect to the remainder of the claims, reconsideration and withdrawal of the rejections are respectfully requested.

Claim 1

Referring specifically to claim language, amended independent Claim 1 is directed to a solar cell module comprising at least one power conversion unit each having a plurality of solar cell elements and a power converter which is a DC-DC converter or an inverter provided in a position corresponding to a region surrounded by all the solar cell elements, wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

The applied art is not seen to disclose or suggest the features of Claim 1, and in particular, the applied art is not seen to disclose or suggest at least the features of a power converter which is a DC-DC converter or an inverter provided in a position corresponding to a region surrounded by all solar cell elements, wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

Toyomura is seen to disclose a solar cell module (photovoltaic element) main body containing a solar cell (photovoltaic element) which is integrated with a power converter for converting output electric power from the solar cell. (See paragraph [0008] of Toyomura). As the power converter, it is possible to use an inverter which converts DC power into AC power, or a DC/DC converter which converts DC power into another DC power having a different voltage. However, Toyomura is not seen disclose or suggest a power converter which is a DC-DC converter or an inverter provided in a position corresponding to a region surrounded by all solar cell elements, wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

Accordingly, Claim 1 is believed to be allowable over Toyomura.

Claim 8

Amended independent Claim 8 is directed to a solar cell module comprising at least one power conversion unit each having a plurality of solar cell elements arranged on a plane and a power converter which is a DC-DC converter or an inverter, wherein the solar cell elements each respectively have a terminal member and the power converter is arranged in the closest position between the terminal members in a state of arranging the solar cell elements, and wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

The applied art is not seen to disclose or suggest the features of Claim 8, and in particular, the applied art is not seen to disclose or suggest at least the features of a plurality of solar cell elements each respectively have a terminal member and a power converter is arranged in a closest position between the terminal members in a state of arranging the solar cell elements, and wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

As discussed above, Toyomura is seen to disclose a solar cell module (photovoltaic element) main body containing a solar cell (photovoltaic element) which is integrated with a power converter for converting output electric power from the solar cell. (See paragraph [0008] of Toyomura). As the power converter, it is possible to use an inverter which converts DC power into AC power, or a DC/DC converter which converts DC power into another DC power having a different voltage. However, Toyomura is not seen to disclose or suggest a plurality of solar cell elements each respectively have a terminal member and a power converter is arranged in a closest position between the

terminal members in a state of arranging the solar cell elements, and wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

Accordingly, Claim 8 is believed to be allowable over the Toyomura.

Claim 9

Amended independent Claim 9 is directed to a solar cell module comprising at least one power conversion unit each having a plurality of solar cell elements arranged on a plane and a power converter which is a DC-DC converter or an inverter, wherein the solar cell elements each respectively have a terminal member and the power converter is arranged in the closest position between the terminal members in a state of arranging the solar cell elements and in a position of minimizing a sum of all collecting losses when collecting the power generated by the solar cell elements, and wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

The applied art is not seen to disclose or suggest the features of Claim 9, and in particular, the applied art is not seen to disclose or suggest at least the features of a plurality of solar cell elements each respectively have a terminal member and a power converter is arranged in a closest position between the terminal members in a state of arranging the solar cell elements and in a position of minimizing a sum of all collecting losses when collecting the power generated by the solar cell elements, and wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

As discussed above, Toyomura is seen to disclose a solar cell module (photovoltaic element) main body containing a solar cell (photovoltaic element) which is integrated with a power converter for converting output electric power from the solar cell. (See paragraph [0008] of Toyomura). As the power converter, it is possible to use an

inverter which converts DC power into AC power, or a DC/DC converter which converts DC power into another DC power having a different voltage. However, Toyomura is not seen to disclose or suggest a plurality of solar cell elements each respectively have a terminal member and a power converter is arranged in a closest position between the terminal members in a state of arranging the solar cell elements and in a position of minimizing a sum of all collecting losses when collecting the power generated by the solar cell elements, and wherein each of the plurality of solar cell elements is electrically connected directly to the power converter.

Accordingly, Claim 9 is believed to be allowable over Toyomura.

Claim 13

Amended independent Claim 13 is directed to a solar cell module comprising at least one power generation unit each having a plurality of solar cell elements and a terminal box provided in a position corresponding to a region surrounded by all the solar cell elements to collect outputs of the solar cell elements, wherein each of the plurality of solar cell elements is electrically connected directly to the terminal box.

The applied art is not seen to disclose or suggest the features of Claim 9, and in particular, the applied art is not seen to disclose or suggest at least the features of a terminal box provided in a position corresponding to a region surrounded by all of a plurality of solar cell elements to collect outputs of the solar cell elements, wherein each of the plurality of solar cell elements is electrically connected directly to the terminal box.

As discussed above, Toyomura is seen to disclose a solar cell module (photovoltaic element) main body containing a solar cell (photovoltaic element) which is integrated with a power converter for converting output electric power from the solar cell.

(See paragraph [0008] of Toyomura). As the power converter, it is possible to use an inverter which converts DC power into AC power, or a DC/DC converter which converts DC power into another DC power having a different voltage. However, Toyomura is not seen to disclose or suggest a terminal box provided in a position corresponding to a region surrounded by all of a plurality of solar cell elements to collect outputs of the solar cell elements, wherein each of the plurality of solar cell elements is electrically connected directly to the terminal box.

Accordingly, Claim 13 is believed to be allowable over Toyomura.

Claim 15

Amended independent Claim 15 is directed to a solar cell module comprising at least one power generation unit each having two adjacent solar cell elements and a terminal box provided in a position corresponding to a region on extension of a gap between the two adjacent solar cell elements to collect outputs of the two adjacent solar cell elements, wherein each of the solar cell elements is electrically connected directly to the terminal box.

The applied art is not seen to disclose or suggest the features of Claim 15, and in particular, is not seen to disclose or suggest at least the features of a terminal box provided in a position corresponding to a region on extension of a gap between two adjacent solar cell elements to collect outputs of the two adjacent solar cell elements, wherein each of the solar cell elements is electrically connected directly to the terminal box.

As discussed above, Toyomura is seen to disclose a solar cell module (photovoltaic element) main body containing a solar cell (photovoltaic element) which is

integrated with a power converter for converting output electric power from the solar cell. (See paragraph [0008] of Toyomura). As the power converter, it is possible to use an inverter which converts DC power into AC power, or a DC/DC converter which converts DC power into another DC power having a different voltage. However, Toyomura is not seen to disclose or suggest a terminal box provided in a position corresponding to a region on extension of a gap between two adjacent solar cell elements to collect outputs of the two adjacent solar cell elements, wherein each of the solar cell elements is electrically connected directly to the terminal box.

Accordingly, Claim 15 is believed be allowable over Toyomura.

The other claims in the application are each dependent from the independent claims discussed above, and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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